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PROPOSED AMENDMENTS TO THE SPECIFICATION:**At page 4, paragraph 2, starting on line 9:**

This message serves to notify the codes of the data cell 10 transmission grant information and the PLOA14 cell transmission grant information, and their validity/invalidity ~~validity and invalidity~~ (activation/deactivation) ~~(activation and deactivation)~~ settings to the subscriber unit.

At page 4, last paragraph, starting on last line:

The subscriber unit performs the same validity/invalidity ~~validity and invalidity~~ processing as the transmission grant allocation message (see Fig.24) to the notified mini cell transmission grant information if the destination is the subscriber unit itself. Also, as for this transmission grant information, the subscriber unit sets/releases a payload length, an offset value, a service ID of the mini cell transmitted to the transmission grant information.

At page 5, paragraph 4, starting on line 13:

In the network unit OLT, a transmission grant information manager 1 manages various transmission grant information and the setting of validity/invalidity ~~validity and invalidity~~ on the subscriber units ONU's one-on-one, and manages the payload length of the cell of the subscriber unit ONU to which the mini cell transmission grant information is allocated, an offset value indicating the position in the slot, and a service ID as for the mini cell transmission grant information.

At page 6, paragraph 3, starting on line 9:

In the subscriber unit ONU, a message processor 21 acquires the various transmission grant information from the PLOAM cell extracted at a POLAM cell demultiplexer 22, and sets the validity/invalidity ~~validity and invalidity~~ thereof. As for the mini cell transmission grant information, the message processor 21 further extracts the payload length and the offset value.

At page 7, last paragraph, starting on line 25:

Also, as for the mini cell transmission grant information, a single transmission grant information is used for a group. Therefore, when a certain subscriber unit is not found valid/invalid ~~valid and invalid~~, there are some cases where polling information by the transmission grant information is generated to the other subscriber unit in which the transmission grant information is valid, and there is a possibility that the input disconnection state is similarly detected.

At page 8, last paragraph, starting on line 28:

Namely, after transmitting a message to each of the subscriber units, the network unit stops the transmission of polling information to 130 allocate a transmission grant by transmission grant information during a period of the validity/invalidity ~~validity and invalidity~~ of the transmission grant information included in the message being undetermined (during a period of the processing of the subscriber unit being estimated to be completed), and avoids the execution of an input disconnection state (LOST) detection of the subscriber unit. Thus, a malfunction of making the subscriber unit non-operation state can be avoided.

At page 9, last paragraph, starting on line 27, and continuing through the last paragraph of page 10, ending on page 11, line 3:

In the invention of claim 3, the network unit has means for generating a message in which validity of transmission grant information is set for the subscriber units, means for generating polling information to allocate a transmission grant to the subscriber units by using the transmission grant information, input disconnection detecting means for detecting a disconnection state of an inputted cell from the subscriber units, and input disconnection detecting switchover controlling means for monitoring a detection result of the input

disconnection detecting means from a time when the message and the polling information have been completely transmitted and for validating/invalidating ~~validating and invalidating~~ a function for the transmission grant information of the input disconnection detecting means after respectively detecting/not detecting ~~detecting and not detecting~~ an inputted cell of validity/invalidity ~~validity and invalidity~~ for the transmission grant information.

Namely, the network unit switches over the execution/non-execution ~~execution and non-execution~~ of the subsequent input disconnection detection based on the presence/absence ~~presence and absence (detection/non-detection) (detection and non-detection)~~ of the inputted cell for the polling information by the transmission grant information, instead of suspending the processing completion for the validity/invalidity ~~validity and invalidity~~ of the transmission grant information in the subscriber unit for a fixed time as in the invention of claim 2.

It is to be noted that a timer may be used to suspend the switchover for a fixed time after the validity/invalidity ~~validity and invalidity~~ of the input disconnection detection is switched over in the invention of claim 3, as in the invention of claim 4.

In the invention of claim 5, the subscriber units have means for recognizing a setting of validity/invalidity ~~validity and invalidity~~ of transmission grant information in a message from the network unit, and means for transmitting a message to the network unit when recognizing the setting of the validity/invalidity ~~validity and invalidity~~ from the message, and the network unit has means for generating the message, input disconnection detecting means for detecting a disconnection state of an inputted cell, and means for validating/invalidating ~~validating and invalidating~~ the input disconnection detecting means when receiving a message from the subscriber units.

Namely, the processing completion of the subscriber unit is not determined only by the network unit as mentioned above, but a message is notified from the network unit to the subscriber unit, so that the subscriber unit switches over the validity/invalidity ~~validity and invalidity~~ of the input disconnection detection by the reception of the message.

At page 11, paragraph 3, starting on line 19:

In the invention of claim 7, the network unit has means for managing plural kinds of transmission grant information set in a message, means for notifying a switchover of validity/invalidity of the transmission grant information to the subscriber units by a message, and means for executing the switchover of the transmission grant information within the network unit itself after a fixed time in consideration of a processing time of the subscriber units from a time of the notification, and the subscriber units have means for executing the switchover of the transmission grant information within the subscriber units themselves after the fixed time from a reception of the message.

At page 12, paragraph 3, starting on line 8:

In the invention of claim 8, the subscriber units have means for recognizing a switchover of validity/invalidity ~~validity and invalidity~~ of plural kinds of transmission grant information set in a message, and means for transmitting a message to the network unit when recognizing the switchover by a message from the network unit, and the network unit has input disconnection detecting means for detecting a disconnection state of an inputted cell, and means for executing the switchover of the transmission grant information within the network unit itself when receiving a message from the subscriber units and for validating/invalidating ~~validating and invalidating~~ the input disconnection detecting means.

At page 12, last paragraph, starting on line 27:

In the invention of claim 9, the network unit has means for managing plural kinds of mini cell transmission grant information set in a message, means for notifying a switchover of ~~validity/invalidity validity and invalidity~~ of the mini cell transmission grant information to the subscriber units by the message, and means for executing the switchover of the ~~validity/invalidity validity and invalidity~~ of the mini cell transmission grant information within the network unit itself after a fixed time in consideration of a processing time of the subscriber units from a time of the notification, and the subscriber units have means for executing the switchover of the mini cell transmission grant information within the subscriber units themselves after the fixed time from a reception of the message.

At page 13, paragraph 3, starting on line 16:

In the invention of claim 10, the subscriber units have means for recognizing plural settings of mini cell transmission grant information set in a message, and means for transmitting a message to the network unit when recognizing a switchover of the setting by a message from the network unit, and the network unit has input disconnection detecting means for detecting a disconnection state of an inputted cell, and means for executing the switchover of the setting of the mini cell transmission grant information within the network unit itself when receiving a message from the subscriber units and for ~~validating/invalidating validating and invalidating~~ the input disconnection detecting means.

At page 14, paragraph 5, starting on line 17, and continuing through to page 15, paragraph 2, starting on line 4:

Fig. 4 is a time chart showing an operation example (input disconnection ~~detection/non-detection detection and non-detection~~ timing) of an embodiment (2) of a communication system according to the present invention;

Fig.5 is a block diagram showing an arrangement of an embodiment (3) of a communication system according to the present invention;

Fig.6 is a time chart showing an operation example (input disconnection detection/non-detection ~~detection and non-detection~~ timing) of an embodiment (3) of a communication system according to the present invention;

Fig.7 is a block diagram showing an arrangement of an embodiment (4) of a communication system according to the present invention;

Figs.8A and 8B are time charts showing an operation example (input disconnection detection/non-detection ~~detection and non-detection~~ timing) of an embodiment (4) of a communication system according to the present invention;

Fig.9 is a block diagram showing an arrangement of an embodiment (5) of a communication system according to the present invention;

Fig.10 is a time chart showing an operation example (input disconnection detection/non-detection ~~detection and non-detection~~ timing) of an embodiment (5) of a communication system according to the present invention;

At page 21, paragraph 2, starting on line 5:

It is to be noted that as shown in Fig. 10, a fixed time from the message transmission to the time when the transmission grant information is validated/invalidated ~~validated and invalidated~~ in the subscriber unit ONU, and a fixed time from the message reception to the time when the transmission grant information is made the object/non-object ~~object or non-object~~ of the input disconnection detection in the network unit OLT may be provided as a suspension time.